GIS Licensure
Panel Discussion Summary

AGIC 2012 GIS Licensure Panel

Panel Topics

This panel discussion explored the idea of licensing GIS and other Geospatial professions within
the State of Arizona. Options for licensure and/or registration that were used to guide the
dialog included:

- Developing a licensure option for GIS Professionals.
- Adding GIS as a specialization area of Land Surveying licensure.
- Defining the areas of GIS exclusionary mapping practices.
- Isn't it more about the data, really?

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A Florida Experience

Florida has enacted legislation that is broad in its definition of the types of mapping and geospatial activities that are regulated and required to be performed by, or under the supervision of "Professional Surveyor and Mapper". The "Practice of surveying and mapping" definition includes activities that are typically performed using GIS technologies (e.g. geodetic location, orientation, subdivision planning maps and record plats, plans and drawings that represent), and this legislation had an impact on the GIS industry.

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A Florida Experience

- At that time, there were no formal GIS organizations to address the proposed legislation.
- Existing GIS professionals had backgrounds based more in Information Technology sciences, and did not have a lot of land survey training.
- Some small GIS shops were forced to close due to the new regulations and statutes.
- Local governments took issue due to required changes to their organizational structure and many refused to comply.
- In hindsight, some surveyors involved in proposing the new statutes said that they wished that they had not included such broad definitions in the statues.
- The large expanse of professions that the practice of GIS involves was not well understood and there were many unanticipated consequences.

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GIS and Survey Differences

- "Boundary" surveying was brought up as a defining activity that separates the mapping professions.
- Authoritative/official data vs. representative data in the intent of the mapping activity and products was also bought up as defining criteria.
- Survey is the legal description of a location while GIS is a representation of the location.
- Typically Survey documents are Authoritative while GIS maps are simply Representations.
- GIS products are intended for planning purposes only.
- GIS is not trying to convey true position.
- In order for a GIS to analyze geographic data, that data must be edited to be consistent with other data or the analysis cannot occur. This requires the location of some data to be shifted to edgematch other data to be analyzed.
- Final products, e.g. maps, legal descriptions, geospatial analysis results, database reports, etc.

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Data

- Attribute accuracy assessment and conveyance in metadata should be required. How is this accuracy evaluated and how would it affect classification? (separate classifications?)
- How "records" are converted into a GIS system has an effect on the accuracy/precision due to the generalization of geometry, removal of vertices, curve representation, etc.
- The end user needs to be considered along with the concepts of “do no harm” and "protect the public".
- Utilize "use qualifiers" or "indicators" as opposed to "authoritative" to classify types of data.
- Work backwards from what quantitatively differentiates a survey product from a mapping product, and what qualifies a person to do one or the other.
- A key accuracy/precision indicator is the intended use of the data.

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Next Steps

- The APLS Geospatial Chapter, in conjunction with AGIC and the BTR L&R Committee, will continue to work on this topic with the intent that we can present a position paper to APLS, AGIC, and the BTR by the end of this calendar year.
- We will also complete our work on the Geospatial Data Classification System and include this with the above position paper.

Questions?